

Live. Learn. Hope.

USING THE LUMIFY ULTRASOUND SYSTEM

Education Services



NORTHWEST

Kidney Centers



THE LUMIFY

- Allows user to visualize AVFs and AVGs
- Allows user to measure depth and diameter of access (not blood flow rates)





TO BEGIN...

- If needed, place tablet in holder on stand





POWER ON

- Power on tablet by pressing button on side





SIGN IN

- Swipe screen to enter password



- Password is @ccess1962



OPEN LUMIFY

➤ Tap Lumify app to open it



➤ Connect transducer to tablet

Connecting a Transducer

- 1 Connect the USB Micro-B connector of the USB transducer cable, indicated with an arrow, to the receptacle on the transducer.
- 2 Slide the connector housing toward the transducer, until it fits snugly in place.
- 3 Insert the USB transducer cable into the receptacle of your device.
- 4 If prompted, select Use By Default for This USB Device.
- 5 Touch OK.





NEXT:

- Perform hand hygiene and wear clean gloves



- Take stand with Lumify and transducer to patient

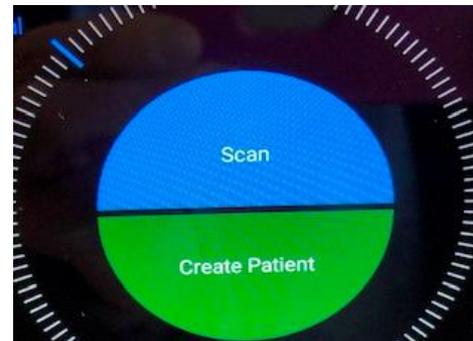


START AN EXAM

- Choose "Vascular"
(tap on the word "Vascular" or move blue line to "Vascular")



- Tap on "Scan"





PREPARE THE TRANSDUCER

- Apply generous amount of gel to transducer





USING THE TRANSDUCER

- Place transducer over access

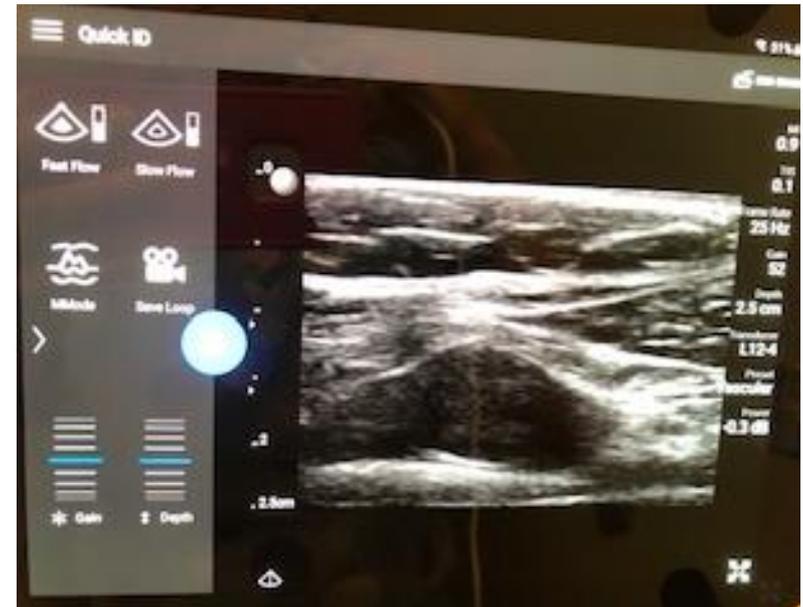
(Keep rubber strip on side of transducer pointing toward patient's head or to patient's right side)





OBTAINING IMAGE

- Slowly move transducer to obtain optimal image of access
- The Lumify has settings to help optimize the image





2D IMAGING MODE

Imaging Modes

- 1 2D mode is the most commonly used imaging mode. The image is displayed in grayscale.
- 2 In the Color modes, an adjustable color box is overlaid on the 2D image:
 - **Fast Flow**  provides a high color scale for arterial flow.
 - **Slow Flow**  provides a low color scale for venous flow.
- 3 **M-Mode**  provides information about the movement of an area of anatomy.





OPTIMIZE IMAGE

Imaging Controls

For information on **Reacts** controls and status icons, see “**Reacts Controls and Status Icons**” on page 20.

Control	Description
	Calculates the estimated fetal weight (EPW) from the abdominal circumference (AC) of the fetus.
	Annotate adds a label to the acquired image.
	Calculates the estimated fetal weight (EPW) from the biparietal diameter (BPD) of the fetus.
	Displays a centerline on the imaging display.
	Clear All removes all measurements performed on the acquired image.
	Confirm Measurement performs fetal analysis from the displayed image.

Control	Description
	Depth adjusts the distance from the face of the transducer to the deepest point on the displayed image.
	Displays two calipers for a 3D Distance measurement from the length of a straight light between the two points.
	Ellipse displays an ellipse for area and circumference measurements.
	End Exam completes the exam.
	Fast Flow overlays a color box, with a high color scale for arterial flow, on the 2D image.
	Calculates the estimated fetal weight (EPW) from the femur length (FL) of the fetus.
	Displays the ultrasound image in full-screen view.



USE > OR < TO MOVE BETWEEN PAGES

Control	Description
	Freezes the image.
	Gain adjusts the image brightness and contrast.
	Calculates the estimated fetal weight (EFW) from the head circumference (HC) of the fetus.
	Calculates the last menstrual period (LMP) and estimated due date (EDD).
	Measure initiates the 2D distance or 2D ellipse measurement tools.
	M-mode displays the M-line on the 2D image, and the movement of the anatomy along that line in an M-mode trace.
	Returns to a standard display after full-screen viewing.

Control	Description
	Save Image acquires an image from the current exam.
	Save Loop acquires a loop from the current exam.
	Slow Flow overlays a color box, with a low color scale for venous flow, on the 3D image.



TOOLS TO ADJUST IMAGE

Focus Depth and Brightness

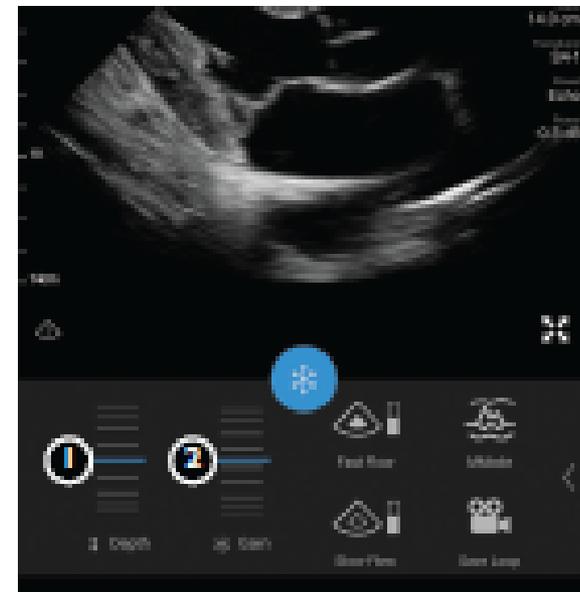
- 1 To change the distance from the face of the transducer to the deepest point on the image, use the **Depth**  dial.
- 2 To adjust image brightness, use the **Gain**  dial.

Zoom

- 1 To magnify an image, spread two fingers on the image.
- 2 To pan the magnified image, drag with one finger.
- 3 To decrease the magnification, pinch two fingers together on the image.

NOTE

If you spread or pinch inside a color box, you resize the color box instead of zooming.





USE COLOR MODE

- While imaging, tap “Fast Flow” or “Slow Flow” (Fast = arterial flow; slow = venous flow)

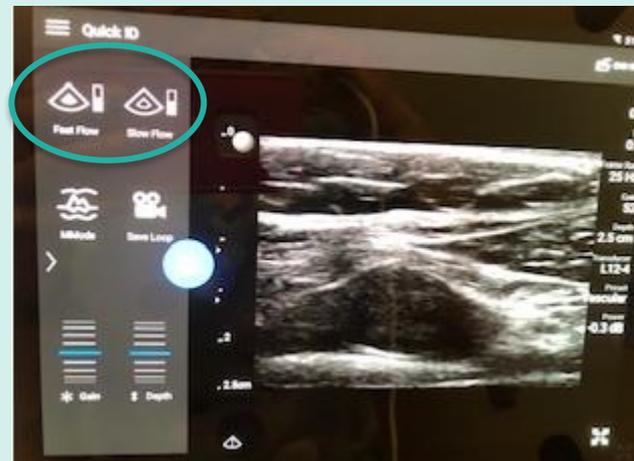
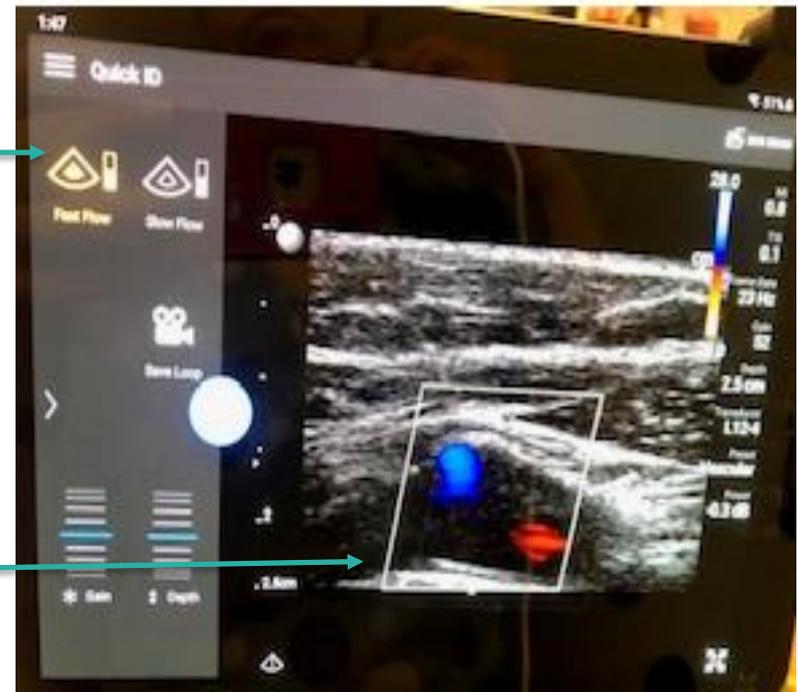




IMAGE USING FAST FLOW

Fast flow icon illuminated →



Adjust box by pinching or expanding →

Exit color mode by tapping fast flow again

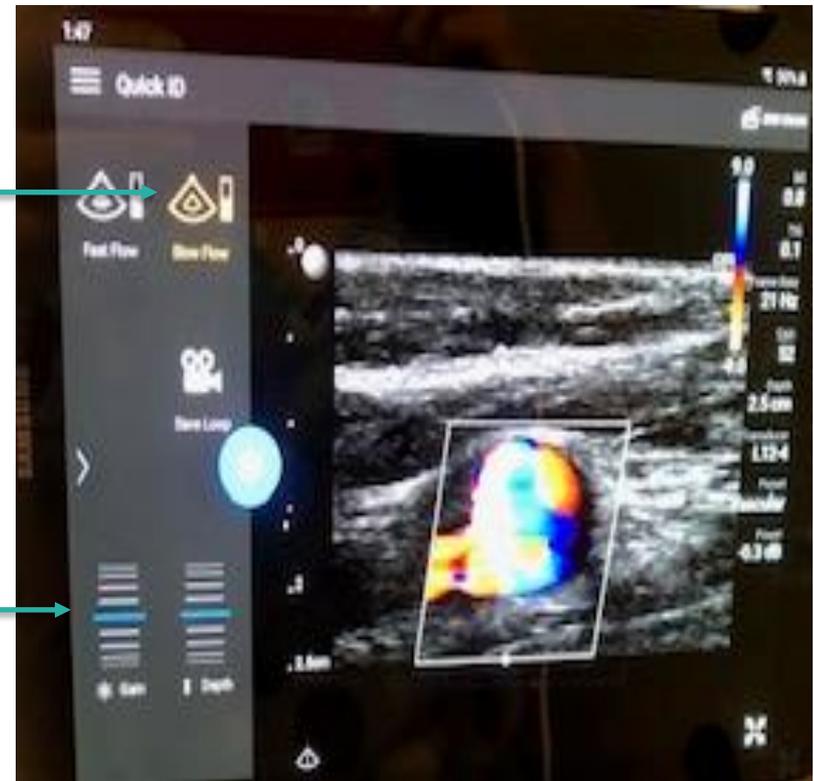


IMAGE USING SLOW FLOW

➤ Slow flow icon illuminated

➤ Can use "Gain" to adjust brightness as desired

(Tap "slow flow" to exit color mode)



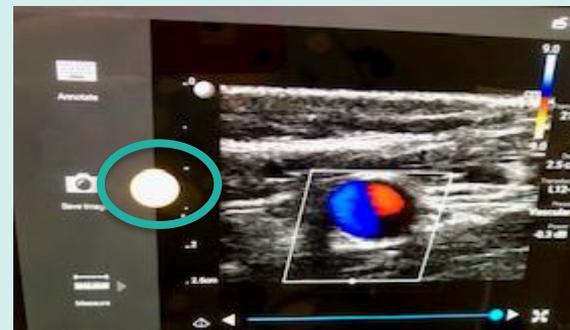


ACQUIRING MEASUREMENTS

- Obtain image to measure and tap “Freeze” icon (blue snowflake)



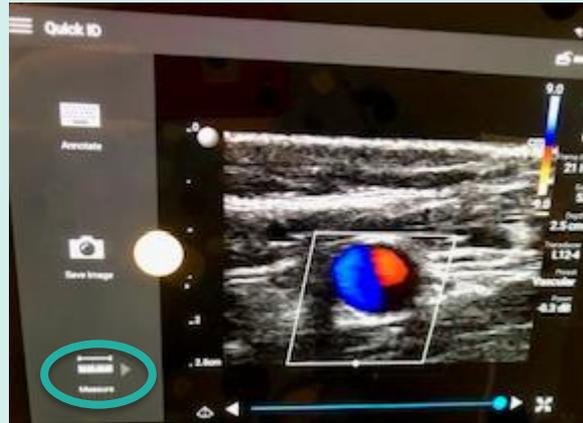
- “Freeze” icon turns yellow when activated (Transducer can then be removed)



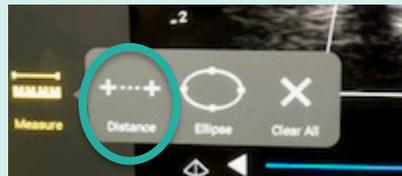


ACQUIRING MEASUREMENTS

- Tap "Measure" icon (ruler)



- Choose "Distance" to obtain calipers





ACQUIRING MEASUREMENTS

- Drag caliper into position; may add additional calipers (up to 4) by continuing to choose caliper icon

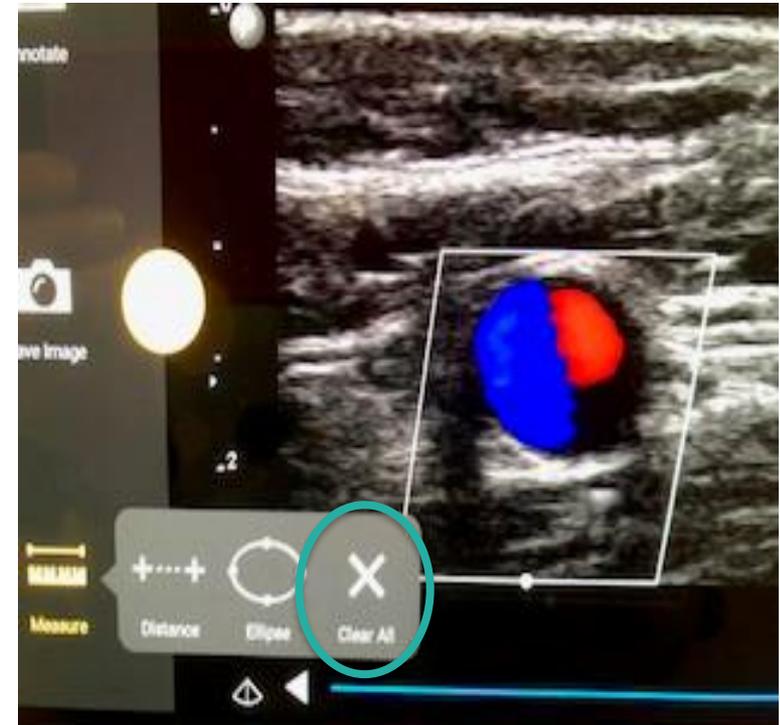


- Measurements are in centimeters



CLEARING MEASUREMENTS

- Select "Clear All" to remove calipers



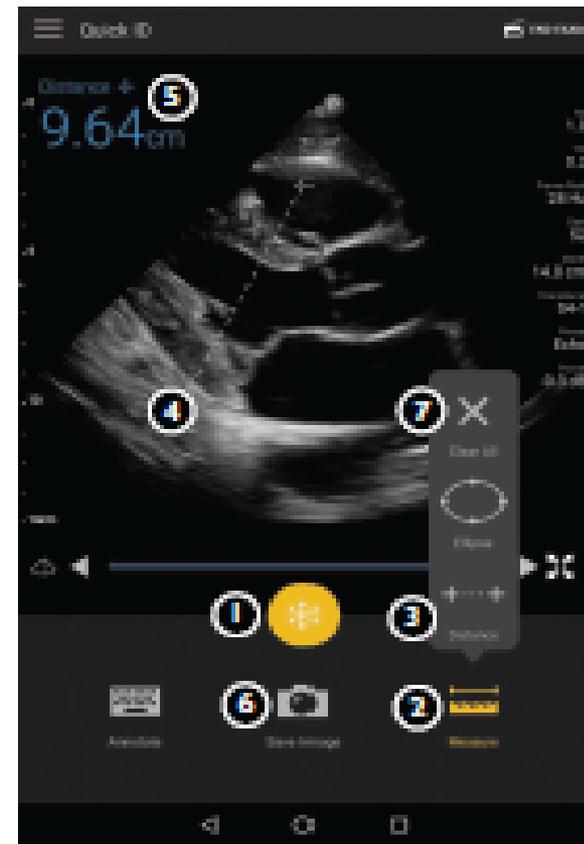


DISTANCE/DEPTH MEASUREMENTS

2D Distance Measurements

You can add up to four measurements on the image.

- 1 Obtain the 2D image you want to measure and touch .
- 2 Touch **Measure** .
- 3 Touch **Distance** . The distance value appears at the top of the image.
- 4 Drag the first caliper into position.
- 5 Drag the second caliper into position. The results update as the distance between the callipers changes.
- 6 To save an image with the displayed measurements, touch **Save Image** .
- 7 To remove the measurements, touch **Clear All** .





DOCUMENTATION

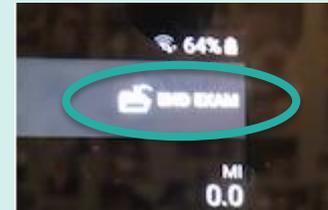
- If needed, record measurements in the EMR
- Do **NOT** save any images in the Lumify; write info down and transcribe into the EMR





ENDING AN EXAM

- Tap “End Exam” and confirm



- Lumify will automatically end an exam if it has been open longer than 24 hours



TURN OFF LUMIFY

- Press and hold power button on side of tablet; tap “Power Off” icon (Note: If no exam performed, must re-enter password to turn tablet off)



- Remove from holder



CLEAN TABLET/TRANSDUCER

- Clean tablet with “PDI Easy Screen” wipes ONLY
- Clean transducer with “Transeptic Cleaning Solution”





CHARGING TABLET

➤ Charge tablet using charging cord

(Note: Tablet charger plugs into same port on tablet as transducer; cannot charge tablet and use Lumify at the same time)



➤ Do **NOT** leave tablet charging constantly



ADDITIONAL INFORMATION

- ✓ Procedure; “Using the Lumify Ultrasound System” (HDP-L19350)
- ✓ Lumify User’s Manual
- ✓ Lumify Quick Guide



RESOURCES:

- Report tablet problems to IT Helpline
206-292-2579
- Report transducer problems to Tech Serv.
206-292-2777



LUMIFY TECH SUPPORT:

- Call 1-800-722-9377
- Select option #3, then option #1
- Please have unit on hand; rep needs serial number from transducer head



QUESTIONS?





~THANK YOU~



~For Your Kind Attention~